

# Interim Agenda of the Professional Development Committee

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 Harrisburg, Pennsylvania

Reference  
 Key Number

## 400 INTRODUCTION

The Professional Development Committee (PDC) submits its Agenda for consideration by the National Conference on Weights and Measures at its 2004 Interim Meeting. This Agenda focuses on the National Training Program proposed at the 2003 NCWM Annual Meeting. The Committee also presents the comments and proposed amendments it received in developing the Agenda for the Interim Meeting. Proposed additions to the items are shown in underlined text and deletions will be shown in strikethrough text (e.g., ~~strikethrough~~). Table A identifies items by Reference Key Number, item title, and page number. B lists the Appendices to the Agenda.

**Table A**  
**Index to Reference Key Items**

Reference Key No.	Title of Item	Page
<b>400</b>	<b>INTRODUCTION .....</b>	<b>1</b>
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**Appendix**

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**Details of All Items**  
(In Order by Reference Key Number)

## **401 EDUCATION**

### **401-1 National Training Program**

**Source:** NCWM Board of Directors.

The NCWM Board of Directors established the Professional Development Committee at the 2003 NCWM Annual Meeting in Sparks, Nevada. The first critical charge to the Committee is to represent the NCWM in the development of a national, weights and measures professional development program in cooperation with our partners:

- State and local Weights and Measures Departments
- Private industry at all levels from manufacturer to repair service
- Technical Advisors from NIST Weights and Measures Division and Measurement Canada

Its scope embraces all matters dealing with, but in priority:

1. The education and professional development of weights and measures officials.
2. The education of industry personnel with regard to weights and measures laws and regulations, including all areas from device manufacturer to service technician.
3. Quality Standards for weights and measures activities and programs.
4. Safety awareness for weights and measures related activities.

**Proposed Amendment:** The Committee will consider a proposal from John Moore to amend item 1 by adding the underlined text as shown below:

- (1.) The education, professional development of weights and measures officials and the promotion of uniformity and consistency in the application of weights and measures laws and regulations.

**Background:** In 2002 the Professional Development Committee (PDC) (formerly the A&P Committee) met with then Chairman Ross Andersen, who explained his vision for revising the National Training Program (See Appendix A). Mr. Andersen's vision includes a horizontal, hierarchical approach to training, filtering out the common elements of general information applicable to a wide range of devices and including the most detailed information in courses for specific devices. The Committee developed an outline for this new training approach and provided the NCWM membership with its draft at the 88<sup>th</sup> Annual Meeting in July 2003.

### **401-2 Professional Development**

**Source:** NCWM Board of Directors.

Develop a consensus on the necessary steps in an educational process to raise the professional status of Weights and Measures and related industry officials throughout the United States.

**Proposed Amendment:** The Committee will consider a proposal from John Moore to amend this item by adding the underlined text as shown below:

Develop a consensus on the necessary and uniform steps in an educational process to raise the professional status of Weights and Measures and related industry officials throughout the United States.

### **401-3 Identify Partners**

**Source:** NCWM Board of Directors.

Identify appropriate roles for each of the partners in implementing such a process.

### **401-4 Create a Curriculum Plan**

**Source:** NCWM Board of Directors.

- (a) Develop and maintain a curriculum plan in cooperation with our partners that establishes training objectives for weights and measures professionals in all fields and at all levels from novice to seasoned veteran.
- (b) The objectives should represent a consensus of our partners and should be organized by scope, sequence, and level of complexity to assist those developing the curriculum materials.

**Proposed Amendment:** The Committee will consider a proposal from John Moore to amend item (a) by adding the underlined text as shown below:

- (a) Develop and maintain a curriculum plan in cooperation with our partners that establishes uniform and consistent training objectives for weights and measures professionals in all fields and at all levels from novice to seasoned veteran.

### **401-5 Curriculum Coordination**

**Source:** NCWM Board of Directors.

- (a) Coordinate the development of curriculum materials to be used in the delivery of training (i.e., testing guides, digital presentations, slide shows, lesson plans, etc.) that may be delivered using a variety of formats (e.g., from self-study to those taught by instructors).
- (b) Consider creating a network of interested parties to establish priorities, share training resources, foster cooperation to reduce redundancy, etc.

**Proposed Amendment:** The Committee will consider a proposal from John Moore to amend item (b) by amending or adding the underlined text as shown below:

- (b) Consider creating a network of interested parties to establish priorities, sharing training resources, fostering cooperation to reduce redundancy, and promote uniformity and consistency.

### **401-6 Training Innovations**

**Source:** NCWM Board of Directors.

Gather and share information from those doing training on various techniques, visual aids, etc. that have been highly effective in facilitating learning.

### **401-7 Instructor Improvement**

**Source:** NCWM Board of Directors.

Coordinate activities to improve the competence of instructors and the uniformity of delivery of the curriculum.

## **401-8 Certification**

**Source:** NCWM Board of Directors.

Consider long-term development of NCWM certification programs based on the curriculum plan.

## **401-9 NCWM Training**

**Source:** Western Weights and Measures Association (WWMA).

**Recommendation:** The WWMA recommended that the NCWM should establish and maintain a database of classroom training programs completed by individual weights and measures officials where the training used NCWM courses (or equivalent) and NIST-certified trainers. The NCWM should also issue certificates to individual weights and measures officials for course completion.

**Background:** The WWMA A&P Committee recognized the value of formal training for inspection staff and the credibility these programs provide. Some jurisdictions have formal licensing programs for weights and measures staff, while others rely on informal and less well-documented programs. The WWMA A&P Committee recognized that NCWM is a logical entity to provide standardized training and accreditation programs.

## **402 PROGRAM MANAGEMENT**

### **402-1 Program Quality Assurance**

**Source:** NCWM Board of Directors.

Continue to promote the development of quality programs through the Voluntary Quality Assurance Assessments (VQAA). Consider programs to promote use of the ISO/IEC/EN 17025 *“General Requirements for the Competence of Calibration and Testing Laboratories”* for state and local field enforcement programs.

### **402-2 NCWM Associate Membership Scholarships**

**Source:** NCWM Board of Directors.

If funding is available, oversee a system to evaluate applications and award scholarships. Provide a report on the scholarships awarded each year.

### **402-3 Safety Awareness**

**Source:** NCWM Board of Directors.

Continue work to identify safety issues in the weights and measure field. Coordinate activities to increase safety awareness.

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Kenneth Deitzler, Pennsylvania, Chairman

Celeste Bennett, Michigan

Steve Hadder, Florida

Cato Fiksdal, Los Angeles County, California

Agatha Shields, Franklin County, Ohio

C. Gardner, Suffolk County, New York, Safety Liaison

John Moore, Associate Membership Committee Representative

## **Professional Development Committee**

## Appendix A

### National Training Curriculum Outline

Weights & Measures General/State Policies	Market Practices Laws and Regulations NIST Handbook 130	General Devices NIST Handbook 44	Weights & Measures Administration	Laboratory Metrology
<ul style="list-style-type: none"><li>• State Administrative Issues<ul style="list-style-type: none"><li>- Completion of administrative forms</li><li>- Review of rules and policies</li></ul></li><li>• History</li><li>• Roles in Society</li><li>• Need for W&amp;M</li><li>• System of W&amp;M</li><li>• W&amp;M in U.S. &amp; Your State</li><li>• Metrology</li><li>• State Laws</li><li>• Relationship to National &amp; International W&amp;M</li><li>• Associations<ul style="list-style-type: none"><li>- Regional, State, Federal</li></ul></li><li>• Federal Agencies</li></ul>				
	<b>Price Verification</b> <ul style="list-style-type: none"><li>• Terminology</li><li>• NIST H-130 Specifications &amp; Requirements</li><li>• Safety</li><li>• Support Equipment</li><li>• General Enforcement Guidelines</li></ul>	<b>Test Purchases</b> <ul style="list-style-type: none"><li>• Examination Specifications</li><li>• EPO</li><li>• Purchasing Process</li><li>• Check for Validity of Purchase</li><li>• Field/Practical Exercises</li></ul>	<b>E-Commerce</b> <ul style="list-style-type: none"><li>• Terminology</li><li>• NIST H-130 Requirements &amp; Specifications</li><li>• Packaging &amp; Labeling Regulations</li><li>• Exemptions</li><li>• Indirect Sale of Random Packages</li></ul>	<b>Fuel Quality</b> <ul style="list-style-type: none"><li>• Terminology</li><li>• NIST H-130 Specifications &amp; Requirements</li><li>• Uncertainty</li><li>• Safety</li><li>• Support Equipment</li><li>• Sampling</li><li>• General Enforcement Guidelines</li></ul>
	<b>Commodities General</b> <ul style="list-style-type: none"><li>• Terminology</li><li>• Wet/Dry Tare</li><li>• NIST H-133 Specifications &amp; Requirements</li><li>• Uncertainty</li><li>• Safety</li><li>• Support Equipment</li><li>• General Enforcement Guidelines</li></ul>			
<b>Standard Pack (WT)</b> <ul style="list-style-type: none"><li>• Examination Specifications</li><li>• Contents of EPO<ul style="list-style-type: none"><li>- Test Equipment</li><li>- Examination</li><li>- Test Specifications</li><li>- Evaluation</li></ul></li><li>• Field/Practical Exercises</li></ul>	<b>Random Pack (wt)</b> <ul style="list-style-type: none"><li>• Examination Specifications</li><li>• Contents of EPO<ul style="list-style-type: none"><li>- Test Equipment</li><li>- Examination</li><li>- Test Specifications</li><li>- Evaluation</li></ul></li><li>• Field/Practical Exercises</li></ul>	<b>Sale by Volume</b> <ul style="list-style-type: none"><li>• Examination Specifications</li><li>• Contents of EPO<ul style="list-style-type: none"><li>- Test Equipment</li><li>- Examination</li><li>- Test Specifications</li><li>- Evaluation</li></ul></li><li>• Field/Practical Exercises</li></ul>	<b>Sale by Count</b> <ul style="list-style-type: none"><li>• Examination Specifications</li><li>• Contents of EPO<ul style="list-style-type: none"><li>- Test Equipment</li><li>- Examination</li><li>- Test Specifications</li><li>- Evaluation</li></ul></li><li>• Field/Practical Exercises</li></ul>	

**General Devices NIST Handbook 44**

- Terminology
- NIST Handbook 44
- Fundamental Consideration
- Uncertainty
- Safety
- Support Equipment
- Seals
- Supports
- General Enforcement Guidelines

**Weighing Devices**

- Terminology
- Scale Types
- Technology
- Suitability
- User Requirements
- Operation/Markings
- Scale Classes & Tolerances
- Basic Scale Test Procedures
- Basic Inspection

**Measuring Devices**

- Terminology
- Measuring Device Types
- Technology
- Suitability
- User Requirements
- Operation & Markings
- Tolerances for LMDs
- Basic LMD Test
- Basic LMD Inspections

**Other Devices**

- Terminology
- Other Device Types
- Technology
- Suitability
- User Requirements
- Operation & Markings
- Tolerances for LMDs
- Basic Test
- Basic Inspections

**Retail Computing Scales**

- Common traits
- Examination Specifications
- Test Equipment
- Examination, Installation, & Maintenance
- Test Specifications
- Evaluation
- Field/Practical Exercises

**Platform Scales**

- Common traits
- EPO
  - Examination Specifications
  - User Requirements
  - Suitability
  - Test Equipment
  - Examination, Installation, & Maintenance
  - Test Specifications
  - Evaluation
- Field/Practical Exercises

**Vehicle Scales**

- Common traits
- Contents of EPO
  - Examination Specifications
  - User Requirements
  - Suitability
  - Test Equipment
  - Examination, Installation, & Maintenance
  - Test Specifications
  - Evaluation
- Field/Practical Exercises

**Vehicle Scales Advanced**

- Initial Verification.

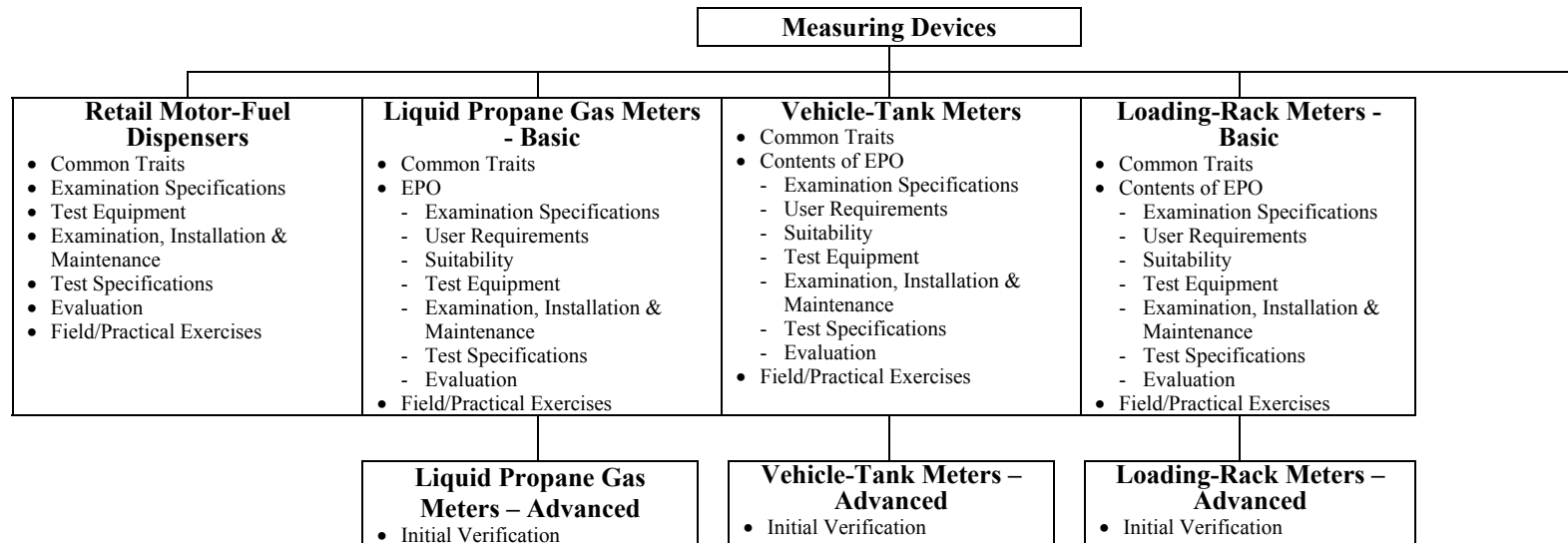
**Railroad Track**

- Common traits
- Contents of EPO
  - Examination Specifications
  - User Requirements
  - Suitability
  - Test Equipment
  - Examination, Installation, & Maintenance
  - Test Specifications
  - Evaluation
- Field/Practical Exercises

**Hopper**

- Common traits
- Contents of EPO
  - Examination Specifications
  - User Requirements
  - Suitability
  - Test Equipment
  - Examination, Installation, & Maintenance
  - Test Specifications
  - Evaluation
- Field/Practical Exercises

<b>Point-of-Sale Scales</b> <ul style="list-style-type: none"> <li>• Common traits</li> <li>• Examination Specifications</li> <li>• User Requirements</li> <li>• Suitability</li> <li>• Test Equipment</li> <li>• Examination, Installation, &amp; Maintenance</li> <li>• Test Specifications</li> <li>• Evaluation</li> <li>• Field/Practical Exercises</li> </ul>	<b>Precision Scales Class I/II</b> <ul style="list-style-type: none"> <li>• Common traits</li> <li>• Examination Specifications</li> <li>• User Requirements</li> <li>• Suitability</li> <li>• Test Equipment</li> <li>• Examination, Installation, &amp; Maintenance</li> <li>• Test Specifications</li> <li>• Evaluation</li> <li>• Field/Practical Exercises</li> </ul>
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<b>Water Meters</b>	<b>Mass Flow Meters</b>	<b>Others</b>
<ul style="list-style-type: none"> <li>• Common Traits</li> <li>• Contents of EPO                             <ul style="list-style-type: none"> <li>- Examination Specifications</li> <li>- User Requirements</li> <li>- Suitability</li> <li>- Test Equipment</li> <li>- Examination, Installation &amp; Maintenance</li> <li>- Test Specifications</li> <li>- Evaluation,</li> </ul> </li> <li>• Field/Practical Exercises</li> </ul>	<ul style="list-style-type: none"> <li>• Common Traits</li> <li>• Contents of EPO                             <ul style="list-style-type: none"> <li>- Examination Specifications</li> <li>- User Requirements</li> <li>- Suitability</li> <li>- Test Equipment</li> <li>- Examination, Installation &amp; Maintenance</li> <li>- Test Specifications</li> <li>- Evaluation</li> </ul> </li> <li>• Field/Practical Exercises</li> </ul>	<ul style="list-style-type: none"> <li>• Common Traits</li> <li>• Contents of EPO                             <ul style="list-style-type: none"> <li>- Examination Specifications</li> <li>- User Requirements</li> <li>- Suitability</li> <li>- Test Equipment</li> <li>- Examination, Installation &amp; Maintenance</li> <li>- Test Specifications</li> <li>- Evaluation</li> </ul> </li> <li>• Field/Practical Exercises</li> </ul>



## Weights & Measures Administration

### Weights & Measures Administration

- Understanding the Commercial Measurement System
- Responsibilities of W&M Regulatory Official
  - Consumer Protection
  - Fair Competition
  - Facilitating Value Comparisons
- Funding Considerations
  - Licensing of W&M Devices
  - Licensing of Service Agencies
  - Conflicts of Interest
- Roles of Stakeholders
  - Manufacturers
  - Packagers
  - Retailers
  - Service Agencies
- Powers & Duties of Officials
  - Weighmaster Considerations
- Type Evaluation, Initial Verification & Subsequent Inspection
  - Economic Impact
- Complete Scope of Weights & Measures Inspections
- Concurrent Federal & State Jurisdiction
- Federal Pre-emption
- Organizational Structure
- Budget
- Personnel
  - Knowledge, Skills & Abilities
  - Training
- Strategic Planning & Goals
- Education
  - Officials
  - Administrative Staff
  - Public
- Publicity
- Public Relations
- Communication
- Record Keeping
- Forms
- Legal Considerations
  - Due Process
  - Stop Orders
  - Standards Development
  - Prosecution
  - Court

### Laboratory Metrology Administration

- Purpose of the Laboratory
- Responsibilities of the Metrologist
- NIST Expectations of the Laboratory
- Rationale for the Requirements for Recognition of the Laboratory
- Important Considerations for Laboratory Operation
- Factors Driving Changes in Laboratory Requirements
- Quality System
- NVLAP Accreditation
- Hierarchy of Laboratory Standards
- Calibration Intervals for All Standards
- Annual RMAP Round Robins & Training
- Laboratory Facility Requirements
- Uncertainty Analysis
- Management Review of Laboratory Operations

